SEQUENCE LISTING

<110> Greasley, Peter

<120> Methods to Identify True Antagonists and Inverse Agonists of the Cannabinoid Receptor

<130> ASZD-P01-752

<150> SE 0202242-4
<151> 2002-07-17

<160> 4

<170> PatentIn Ver. 2.1

<210> 1
<211> 472
<212> PRT
<213> Homo sapiens

<400> 1

```
Met Lys Ser Ile Leu Asp Gly Leu Ala Asp Thr Thr Phe Arg Thr Ile
 1               5                  10                  15

Thr Thr Asp Leu Leu Tyr Val Gly Ser Asn Asp Ile Gln Tyr Glu Asp
                20                  25                  30

Ile Lys Gly Asp Met Ala Ser Lys Leu Gly Tyr Phe Pro Gln Lys Phe
            35                  40                  45

Pro Leu Thr Ser Phe Arg Gly Ser Pro Phe Gln Glu Lys Met Thr Ala
        50                  55                  60

Gly Asp Asn Pro Gln Leu Val Pro Ala Asp Gln Val Asn Ile Thr Glu
65                  70                  75                  80

Phe Tyr Asn Lys Ser Leu Ser Ser Phe Lys Glu Asn Glu Glu Asn Ile
                85                  90                  95

Gln Cys Gly Glu Asn Phe Met Asp Ile Glu Cys Phe Met Val Leu Asn
            100                 105                 110

Pro Ser Gln Gln Leu Ala Ile Ala Val Leu Ser Leu Thr Leu Gly Thr
            115                 120                 125

Phe Thr Val Leu Glu Asn Leu Leu Val Leu Cys Val Ile Leu His Ser
        130                 135                 140

Arg Ser Leu Arg Cys Arg Pro Ser Tyr His Phe Ile Gly Ser Leu Ala
145                 150                 155                 160

Val Ala Asp Leu Leu Gly Ser Val Ile Phe Val Tyr Ser Phe Ile Asp
                165                 170                 175

Phe His Val Phe His Arg Lys Asp Ser Arg Asn Val Phe Leu Phe Lys
            180                 185                 190
```

Leu Gly Gly Val Thr Ala Ser Phe Thr Ala Ser Val Gly Ser Leu Phe
    195   200   205

Leu Thr Ala Ile Ala Arg Tyr Ile Ser Ile His Arg Pro Leu Ala Tyr
    210   215   220

Lys Arg Ile Val Thr Arg Pro Lys Ala Val Val Ala Phe Cys Leu Met
225   230   235   240

Trp Thr Ile Ala Ile Val Ile Ala Val Leu Pro Leu Leu Gly Trp Asn
          245   250   255

Cys Glu Lys Leu Gln Ser Val Cys Ser Asp Ile Phe Pro His Ile Asp
        260   265   270

Glu Thr Tyr Leu Met Phe Trp Ile Gly Val Thr Ser Val Leu Leu Leu
      275   280   285

Phe Ile Val Tyr Ala Tyr Met Tyr Ile Leu Trp Lys Ala His Ser His
    290   295   300

Ala Val Arg Met Ile Gln Arg Gly Thr Gln Lys Ser Ile Ile Ile His
305   310   315   320

Thr Ser Glu Asp Gly Lys Val Gln Val Thr Arg Pro Asp Gln Ala Arg
         325   330   335

Met Ala Ile Arg Leu Ala Lys Thr Leu Val Leu Ile Leu Val Val Leu
        340   345   350

Ile Ile Cys Trp Gly Pro Leu Leu Ala Ile Met Val Tyr Asp Val Phe
        355   360   365

Gly Lys Met Asn Lys Leu Ile Lys Thr Val Phe Ala Phe Cys Ser Met
    370   375   380

Leu Cys Leu Leu Asn Ser Thr Val Asn Pro Ile Ile Tyr Ala Leu Arg
385   390   395   400

Ser Lys Asp Leu Arg His Ala Phe Arg Ser Met Phe Pro Ser Cys Glu
        405   410   415

Gly Thr Ala Gln Pro Leu Asp Asn Ser Met Gly Asp Ser Asp Cys Leu
        420   425   430

His Lys His Ala Asn Asn Ala Ala Ser Val His Arg Ala Ala Glu Ser
        435   440   445

Cys Ile Lys Ser Thr Val Lys Ile Ala Lys Val Thr Met Ser Val Ser
    450   455   460

Thr Asp Thr Ser Ala Glu Ala Leu
465   470

<400> 2
atgaagtcga tcctagatgg ccttgcagat accaccttcc gcaccatcac cactgacctc 60
ctgtacgtgg gctcaaatga cattcagtac gaagacatca aaggtgacat ggcatccaaa 120
ttagggtact tcccacagaa attcccttta acttccttta ggggaagtcc cttccaagag 180
aagatgactg cgggagacaa cccccagcta gtcccagcag accaggtgaa cattacagaa 240
ttttacaaca agtctctctc gtccttcaag gagaatgagg agaacatcca gtgtgggggag 300
aacttcatgg acatagagtg tttcatggtc ctgaacccca gccagcagct ggccattgca 360
gtcctgtccc tcacgctggg caccttcacg gtcctggaga acctcctggt gctgtgcgtc 420
atcctccact cccgcagcct ccgctgcagg ccttcctacc acttcatcgg cagcctggcg 480
gtggcagacc tcctggggag tgtcattttt gtctacagct tcattgactt ccacgtgttc 540
caccgcaaag atagccgcaa cgtgtttctg ttcaaactgg gtggggtcac ggcctccttc 600
actgcctccg tgggcagcct gttcctcaca gccatcgcca ggtacatatc cattcacagg 660
cccctggcct ataagaggat tgtcaccagg cccaaggccg tggtggcgtt ttgcctgatg 720
tggaccatag ccattgtgat cgccgtgctg cctctcctgg gctggaactg cgagaaactg 780
caatctgttt gctcagacat tttcccacac attgatgaaa cctacctgat gttctggatc 840
ggggtcacca gcgtactgct tctgttcatc gtgtatgcgt acatgtatat tctctggaag 900
gctcacagcc acgccgtccg catgattcag cgtggcaccc agaagagcat catcatccac 960
acgtctgagg atgggaaggt acaggtgacc cggccagacc aagcccgcat ggacattagg 1020
ttagccaaga ccctggtcct gatcctggtg gtgttgatca tctgctgggg ccctctgctt 1080
gcaatcatgg tgtatgatgt ctttgggaag atgaacaagc tcattaagac ggtgtttgca 1140
ttctgcagta tgctctgcct gctgaactcc accgtgaacc ccatcatcta tgctctgagg 1200
agtaaggacc tgcgacacgc tttccggagc atgtttccct cttgtgaagg cactgcgcag 1260
cctctggata acagcatggg ggactcggac tgcctgcaca aacacgcaaa caatgcagcc 1320
agtgttcaca gggccgcaga aagctgcatc aagagcacgg tcaagattgc caaggtaacc 1380
atgtctgtgt ccacagacac gtctgccgag gctctgtga 1419

<210> 3
<211> 1419
<212> DNA
<213> Homo sapiens

<400> 3
atgaagtcga tcctagatgg ccttgcagat accaccttcc gcaccatcac cactgacctc 60
ctgtacgtgg gctcaaatga cattcagtac gaagacatca aaggtgacat ggcatccaaa 120
ttagggtact tcccacagaa attcccttta acttccttta ggggaagtcc cttccaagag 180
aagatgactg cgggagacaa cccccagcta gtcccagcag accaggtgaa cattacagaa 240
ttttacaaca agtctctctc gtccttcaag gagaatgagg agaacatcca gtgtgggggag 300
aacttcatgg acatagagtg tttcatggtc ctgaacccca gccagcagct ggccattgca 360
gtcctgtccc tcacgctggg caccttcacg gtcctggaga acctcctggt gctgtgcgtc 420
atcctccact cccgcagcct ccgctgcagg ccttcctacc acttcatcgg cagcctggcg 480
gtggcagacc tcctggggag tgtcattttt gtctacagct tcattgactt ccacgtgttc 540
caccgcaaag atagccgcaa cgtgtttctg ttcaaactgg gtggggtcac ggcctccttc 600
actgcctccg tgggcagcct gttcctcaca gccatcgaca ggtacatatc cattcacagg 660
cccctggcct ataagaggat tgtcaccagg cccaaggccg tggtggcgtt ttgcctgatg 720
tggaccatag ccattgtgat cgccgtgctg cctctcctgg gctggaactg cgagaaactg 780
caatctgttt gctcagacat tttcccacac attgatgaaa cctacctgat gttctggatc 840
ggggtcacca gcgtactgct tctgttcatc gtgtatgcgt acatgtatat tctctggaag 900
gctcacagcc acgccgtccg catgattcag cgtggcaccc agaagagcat catcatccac 960
acgtctgagg atgggaaggt acaggtgacc cggccagacc aagcccgcat ggacattagg 1020
ttagccaaga ccctggtcct gatcctggtg gtgttgatca tctgctgggg ccctctgctt 1080
gcaatcatgg tgtatgatgt ctttgggaag atgaacaagc tcattaagac ggtgtttgca 1140
ttctgcagta tgctctgcct gctgaactcc accgtgaacc ccatcatcta tgctctgagg 1200
agtaaggacc tgcgacacgc tttccggagc atgtttccct cttgtgaagg cactgcgcag 1260
cctctggata acagcatggg ggactcggac tgcctgcaca aacacgcaaa caatgcagcc 1320
agtgttcaca gggccgcaga aagctgcatc aagagcacgg tcaagattgc caaggtaacc 1380
atgtctgtgt ccacagacac gtctgccgag gctctgtga 1419

<210> 4
<211> 1419
<212> DNA
<213> Homo sapiens

<400> 4
atgaagtcga tcctagatgg ccttgcagat accaccttcc gcaccatcac cactgacctc 60
ctgtacgtgg gctcaaatga cattcagtac gaagacatca aaggtgacat ggcatccaaa 120
ttagggtact tcccacagaa attcccttta acttccttta ggggaagtcc cttccaagag 180
aagatgactg cggagacaa ccccccagcta gtcccagcag accaggtgaa cattacagaa 240
ttttacaaca agtctctctc gtccttcaag gagaatgagg agaacatcca gtgtggggag 300
aacttcatgg acatagagtg tttcatggtc ctgaaccca gccagcagct ggccattgca 360
gtcctgtccc tcacgctggg caccttcacg gtcctggaga acctcctggt gctgtgcgtc 420
atcctccact cccgcagcct ccgctgcagg ccttcctacc acttcatcgg cagcctggcg 480
gtggcagacc tcctggggag tgtcattttt gtctacagct tcattgactt ccacgtgttc 540
caccgcaaag atagccgcaa cgtgtttctg ttcaaactgg gtggggtcac ggcctccttc 600
actgcctccg tgggcagcct gttcctcaca gccatcgcca ggtacatatc cattcacagg 660
cccctggcct ataagaggat tgtcaccagg cccaaggccg tggtggcgtt ttgcctgatg 720
tggaccatag ccattgtgat cgccgtgctg cctctcctgg gctggaactg cgagaaactg 780
caatctgttt gctcagacat tttcccacac attgatgaaa cctacctgat gttctggatc 840
ggggtcacca gcgtactgct tctgttcatc gtgtatgcgt acatgtatat tctctggaag 900
gctcacagcc acgccgtccg catgattcag cgtggcaccc agaagagcat catcatccac 960
acgtctgagg atgggaaggt acaggtgacc cggccagacc aagcccgcat ggccattagg 1020
ttagccaaga ccctggtcct gatcctggtg gtgttgatca tctgctgggg ccctctgctt 1080
gcaatcatgg tgtatgatgt ctttgggaag atgaacaagc tcattaagac ggtgtttgca 1140
ttctgcagta tgctctgcct gctgaactcc accgtgaacc ccatcatcta tgctctgagg 1200
agtaaggacc tgcgacacgc tttccggagc atgtttccct cttgtgaagg cactgcgcag 1260
cctctggata acagcatggg ggactcggac tgcctgcaca aacacgcaaa caatgcagcc 1320
agtgttcaca gggccgcaga aagctgcatc aagagcacgg tcaagattgc caaggtaacc 1380
atgtctgtgt ccacagacac gtctgccgag gctctgtga 1419